TSC Pd-D Fusion and Zeolite-Heat-Water

Frank Dodd (Tony) Smith, Jr - 2015
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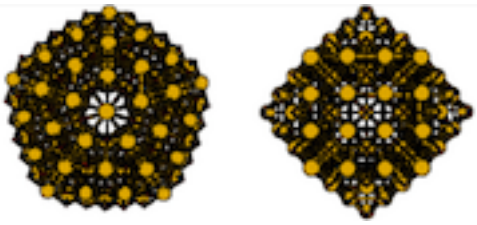
Abstract

TSC-Jitterbug Pd-D fusion with 147-atom Palladium clusters containing Deuterium in Sodium Zeolite Y cages produces energy that can be carried from the Deuterium electrons to the Palladium electrons to the Zeolite electrons, thus heating the Zeolite, which heat can be released as needed by reacting with D20 to form steam. If the Water that is initially in the Zeolite and released as the Zeolite is heated by fusion is Hydrogen water, then the Hydrogen could contaminate the Pd cluster Deuterium and impair the TSC fusion process so all Zeolite used for TSC-Jitterbug Pd-D fusion should be of the form $A_mX_pO_{2p} \cdot nD_2O$ that is, all the water in the Zeolite used for Pd-D fusion should be Heavy Water D_2O which can be accomplished by taking ordinary Zeollte, then heating it to flush out all the Ordinary Water H_2O and then cooling it with Heavy Water D_2O to give $A_mX_pO_{2p} \cdot nD_2O$

TSC-Jitterbug Pd-D fusion with 147-atom Palladium clusters containing Deuterium



in Sodium Zeolite Y cages

is described in some detail in my papers at

http://vixra.org/abs/1501.0234
http://vixra.org/abs/1502.0069

If each 147-atom Palladium cluster is embedded into a Zeolite cage
then the fusion energy can be carried from the Deuterium electrons
to the Palladium electrons to the Zeolite electrons,
thus heating the Zeolite,
which heat can be released as needed by reacting with D20 to form steam.

"... Zeolite is a aluminosilicate mineral ... consist[ing] of three dimensional networks of AlO_4 and SiO_4 tetrahedra linked by ... oxygen atoms ... which contains crystal water. Its general chemical formula is

$$A_mX_pO_{2p} \cdot nH_2O$$

Where A represents Ca, Na, K, Ba, and Sr; X represents Al and Si. ...
When zeolites are heated, water molecules in it escape, and heat energy is stored in it ...[

$$nH_2O + \text{hot } A_mX_pO_{2p}$$

]... in the meantime; when water molecules are adsorbed again, the heat energy in zeolites is released ...[

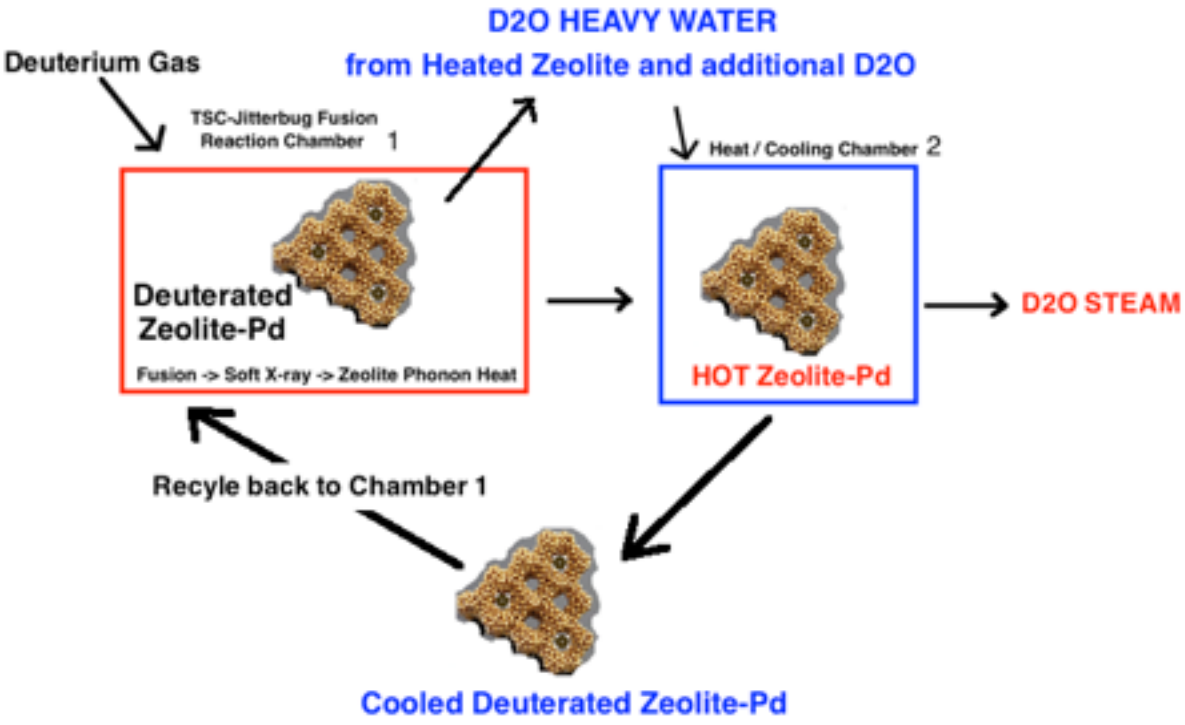
$$A_mX_pO_{2p} \cdot nH_2O + (\text{ hot ambient } H_2O = \text{steam })$$

]...". (Han Baoqi, Yuan Hongyen, Yang Dequan, Liu Guoxi, Paper No. 9404 of Jilin Agricultural University, Changchun, Jilin Province, 130118, China, Utilization of natural zeolites for solar energy storage)

If the nH_2O that is initially in the Zeolite and released as the Zeolite is heated by fusion is Hydrogen water, then the Hydrogen could contaminate the Pd cluster Deuterium and impair the TSC fusion process
so
all Zeolite used for TSC-Jitterbug Pd-D fusion should be of the form

$$A_mX_pO_{2p} \cdot nD_2O$$

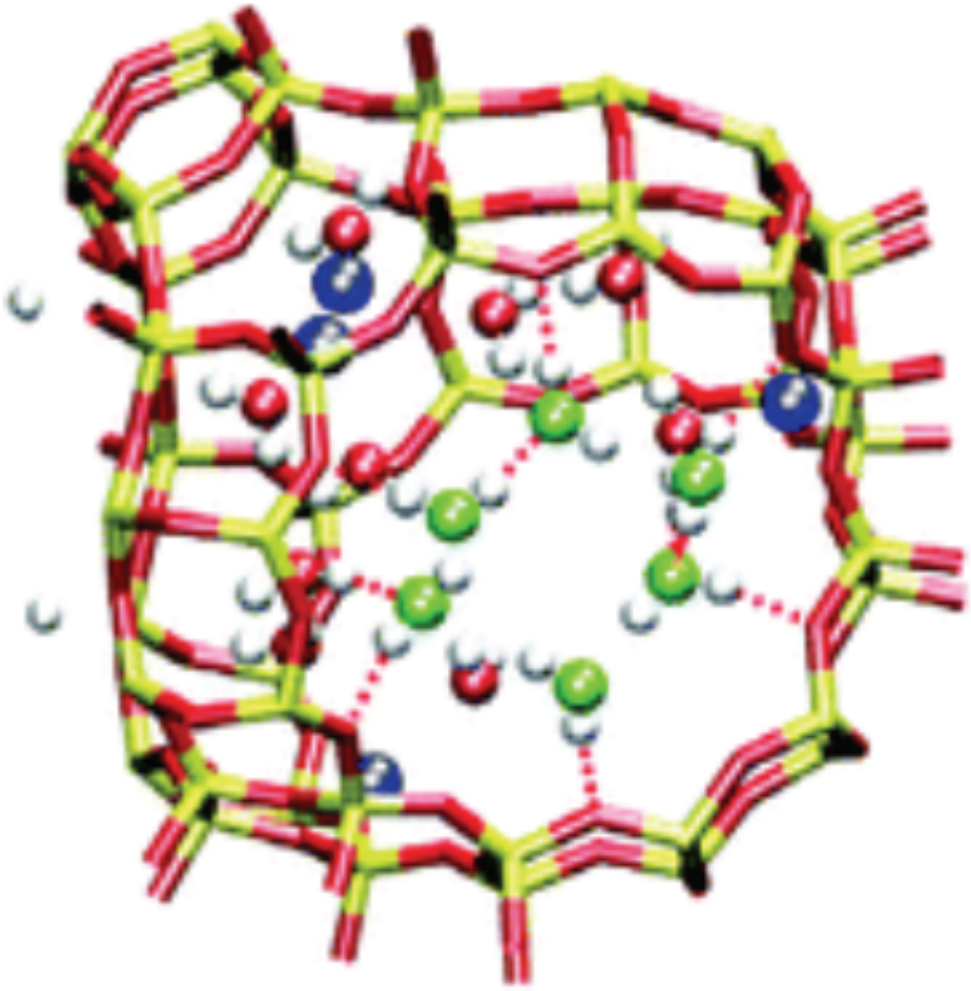
that is, all the water in the Zeolite used for Pd-D fusion should be Heavy Water D_2O which
can be accomplished by taking ordinary Zeollte
then heating it to flush out all the Ordinary Water D_2O
and then cooling it with Heavy Water D_2O to give $A_mX_pO_{2p} \cdot nD_2O$
so that
the overall process looks like



(Zeolite-Pd images adapted from
Calvo amd Carre in Nanotechnology 17 (2006) 1292-1299 and from
http://gwenbeads.blogspot.com/2014/04/infinite-skew-polyhedron-faujasite-4446.html)

As to how the Water is configured in the Zeolite:

“... We report ... Monte Carlo simulations of water ... ... adsorption in [Zeolite] NaY ... faujasite ... The existence of cyclic water hexamers ... located in the 12-ring windows ...



... recently disclosed by neutron diffraction experiments ... were ... observed in the case of NaY ...”. (Angela Di Lella, Nicolas Desbiens, Anne Boutin, Isabelle Demachy, Philippe Ungerer, Jean-Pierre Bellat, and Alain H. Fuchs, Phys. Chem. Chem. Phys. 8 (2006) 5396-5406)